ECONO-PLUS 36DV-TV

INSTALLING AND OPERATING YOUR ECONO-PLUS 36DV GAS-BURNING FIREPLACE

Please leave this manual with the owner

CHECK LOCAL CODES PRIOR TO INSTALLATION

FOR YOUR SAFETY
IF YOU SMELL GAS:
1. OPEN WINDOWS.
2. DON'T TOUCH ELECTRICAL SWITCHES
3. EXTINGUISH ANY OPEN FLAME.
4. IMMEDIATELY CALL YOUR GAS SUPPLIER.

FOR YOUR SAFETY:

DO NOT STORE OR USE ANY FLAMMABLE VAPOURS OR LIQUIDS NEAR THIS OR ANY OTHER GAS-BURNING APPLIANCE.

READ INSTRUCTIONS CAREFULLY BEFORE INSTALLING

MODEL
ECONO-PLUS 36DV-TV

CANADIAN GAS ASSOCIATION
APPROVED

CANADIAN HEATING PRODUCTS INC.
13120 - 76th Avenue, Surrey, B.C. Canada; Phone: (604) 597-3115 Fax: (604) 597-3096

INTRODUCTION

The **Econo Plus 36DV-TV** is rated at 16,000 BTUs. (4.16 Kilowatts) for Natural & Propane gas.
The Econo Plus warranty will be voided by, and **Econo Plus** disclaims any responsibility for, the following actions:

- Modification of the fireplace and/or components including Direct-Vent assembly or glass doors.
- Use of any component part not manufactured or approved by Econo Plus in combination with a Econo Plus fireplace system.
- Installation other than as instructed in this manual.

Consult your local Gas Inspection Branch about the particular requirements concerning installation of factory-built gas fireplaces. **Installation & repairs should be done by a qualified contractor, and installation must conform with the current CAN/CGA B-149.1 and .2 Gas Installation Code and local regulations.**

CAUTIONS

* Due to its high operating temperatures, the appliance should be located out of traffic & away from furniture and draperies.

* Children and adults should be alerted to the hazards of the high surface temperature, which could cause burns or clothing ignition.

* Young children should be carefully supervised when they are in the same room as the appliance.

* Clothing or other flammable materials should not be placed on or near the appliance.

SELECTING YOUR FIREPLACE LOCATION

The fireplace may be installed in any location that is free of air condition ducts, electrical wiring and plumbing. Safety, as well as efficiency of operation, must be considered when selecting the fireplace location. Try to select a location that does not interfere with room traffic, has adequate ventilation, and offers an accessible pathway for Direct Vent & Combustion Air Kit installation.

The fireplace dimensions are shown below:
NOTE: SEE FIGURE 2 FOR FRAMING DIMENSIONS

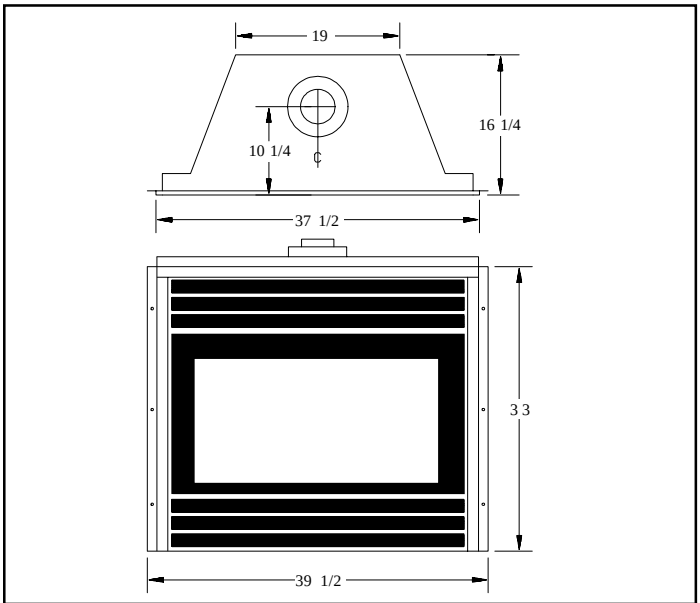


FIGURE 1. FIREPLACE DIMENSIONS

INSTALLING THE FIREPLACE

The **Econo Plus 36DV-TV** clearances to combustible materials are 0" back, 1" sides, 0" floor and 4" top. The **Econo Plus 36DV-TV** must not be installed any closer than 8 inches to any unprotected combustible wall perpendicular to the fireplace opening.

For protection against freezing temperatures, it is recommended that outer walls of the chase be insulated with a vapour barrier. This will reduce the possibility of a cold-air convection current on the fireplace.

The framing dimensions are shown below:

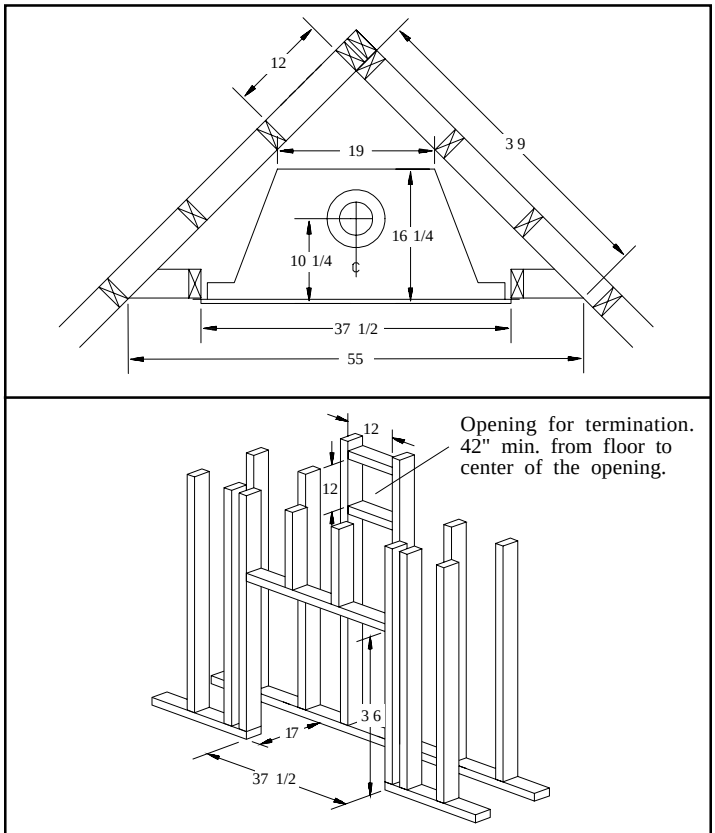


FIGURE 2. FRAMING DIMENSIONS

INSTALLING THE GAS LINE

The gas line must be installed before finishing the Econo Plus 36DV-TV Fireplace. **Natural Gas** requires an inlet pressure of 7" W.C. & a manifold pressure of 3.5" W.C. **Propane Gas** requires an inlet pressure of 11" W.C. & a manifold pressure of 10.5" W.C. It is also required that provisions be made for a 1/8" N.P.T. plugged tapping and be accessable for test gauge connection immediately upstream of the gas supply controls to the appliance. The fireplace gas connection and the main operating gas valve is located behind the removable brass trim at the bottom of the unit and need only be attached to the gas line with an approved fitting, as required by the **CAN/CGA B-149.1 and .2** Gas Installation Code.

CAUTION

*After gas line is connected, it is a Can/CGA B149.1 & .2 code requirement (Section 8.25.3 (e)) that "each ***appliance*** connection, ***valve, valve train,*** shall be checked while under normal operating pressure with either a liquid solution, or leak detection device, to locate any source of leak." Tighten any areas where bubbling appears or leak is detected until bubbling stops completely or leak is no longer detected. **Do NOT** use a flame of any kind to test for leaks.

DIRECT VENT TERMINATION LOCATION

This section is used to determine where your direct vent termination will be located.

VENT TERMINATIONS SHALL NOT BE RECESSED IN WALLS OR SIDING.

CAUTION

1). **Extremely important: In heavy snow areas take extra care to prevent against blocking vent termination with snow removal equipment.**

2). **Flue gases exiting vent terminals are very hot and must not be restricted to assure fireplace combustion is not affected.**

3). **Do not place, build any obstruction, plant any bushes or for any reason attempt to conceal the vent termination. To do so will affect the operation of the fireplace and may be hazardous.**

4). National Standards require that vent terminations be protected with an additional screen on patio's, decks and any areas accessible to public. For maximum safety we recommend all terminals below 7' from grade level be installed with a certified Econo Plus protective screen. (MTKG)

FOR DETAILED SKETCH OF ALLOWED TERMINATION LOCATIONS SEE APPENDIX A

FOR VINYL SIDING APPLICATIONS ALL **MTK** TERMINATIONS MUST BE INSTALLED WITH A HEAT SHIELD (MTKG) TO PROTECT THE SIDING FROM ANY HEAT DAMAGE. **MTKO** TERMINATIONS DO NOT REQUIRE A HEAT SHIELD.

IMPORTANT:

When using **MTK or MTKO with MOSR:** Framed opening must be 12" X 12"

✻ When using **MTK or MTKO:** Framed opening must be 11" X 11"

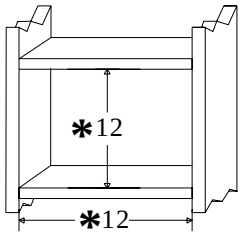
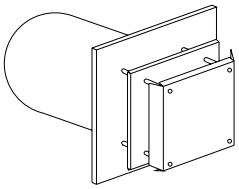
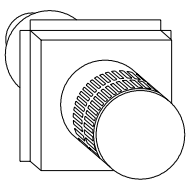


FIGURE 4. VENT TERMINATION FRAMING.



MTK-5 or MTK-9



MTKO-5 or MTKO-9

INSTALLATION OF DIRECT VENT

A complete Econo Plus 36DV-TV vent system may comprise of six individual components: **(see figure 5. page 4)**

A - Termination	MTK-5 (5" length) MTK-9 (9" length)
B - Stucco Kits	MSR (stucco frame) MOSR (stucco can)
C - Solid section & elbow	MIHR-6 (6 ft. length) MIHR-10 (10 ft. length)
D - Flex sections	MFL-1 (1' 6" section) MFL-2 (2' 6" section) MFL-3 (3' 6" section) MFL-4 (4' 6" section)
E - Solid sections	MEXT-1 (1' 6" section) MEXT-2 (2' 6" section) MEXT-3 (3' 6" section) MEXT-4 (4' 6" section)
F - 90 degree elbow	MEL90 (90 deg. elbow)

Example: For our shortest venting configuration use components A, B, and F. **(see Figure 5).**

Example: A 10' section and elbow (MIHR-10) used in conjunction with 3 ft. flex section (MFL-3) will, when extended in a five foot chase, allow for a maximum horizontal run of twelve and one-half feet from the centre of the fireplace to outside wall and a minimum of 7'6" when retracted in opposite direction **(see Figure 6 and 7)**.

"D" flex sections and "E" solid sections may be used in conjunction with one another to obtain different possible horizontal length installations. **NOTE:** Flex section must not exceed maximum horizontal length of 3 feet. **(see Figure 7.1)**

CAUTIONS AND REQUIREMENTS

Note: <u>DO NOT STRETCH</u> flexible connector to gain extra length. These connectors are Flexible only to allow for directional changes, which must not exceed 90 degrees.

A minimum height of 43" to centre of horizontal flue is required.

All vent pipes must maintain a minimum of 1" clearance to combustible materials.

Note: It is imperative for satisfactory operation of the Econo Plus 36DV-TV fireplace that no venting component be modified in any way. All components have been manufactured to eliminate the need for modification when properly selected and installed.

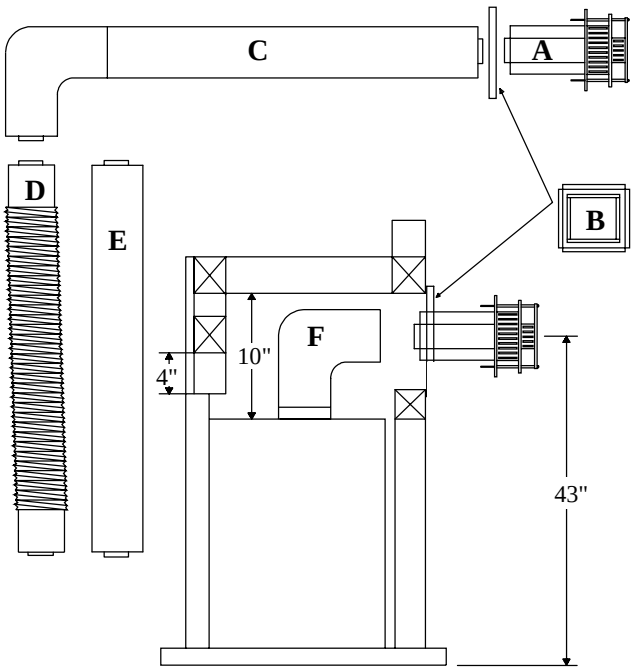


FIGURE 5. TYPICAL INSTALLATIONS.

HORIZONTAL VENTING

All vent pipes must maintain a minimum of 1" clearance to combustible materials.

****NOTE:** All dimension lengths for vertical or horizontal runs are measured from center of the 7" elbow.

(A) Horizontal length (see venting graph)

(B) Vertical length (see venting graph)

Center of 7" elbow to outside wall	10 Ft Section MIHR-10	6 Ft Section MIHR-6
Maximum extended length	12 1/2 Ft.	8 1/2 Ft.
Maximum retracted length	07 1/2 Ft.	3 1/2 Ft.

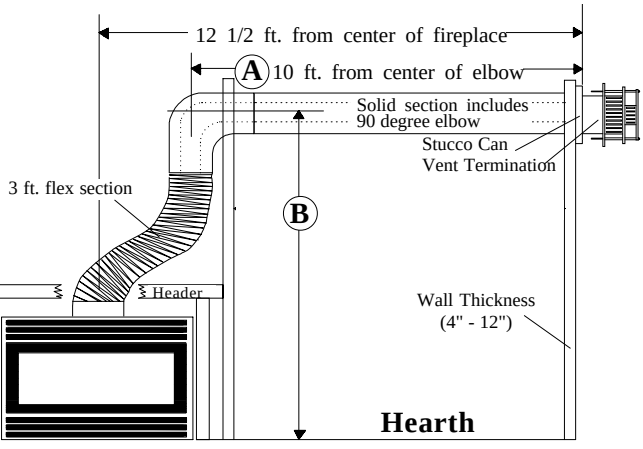


FIGURE 6. EXTENDED 10' SECTION

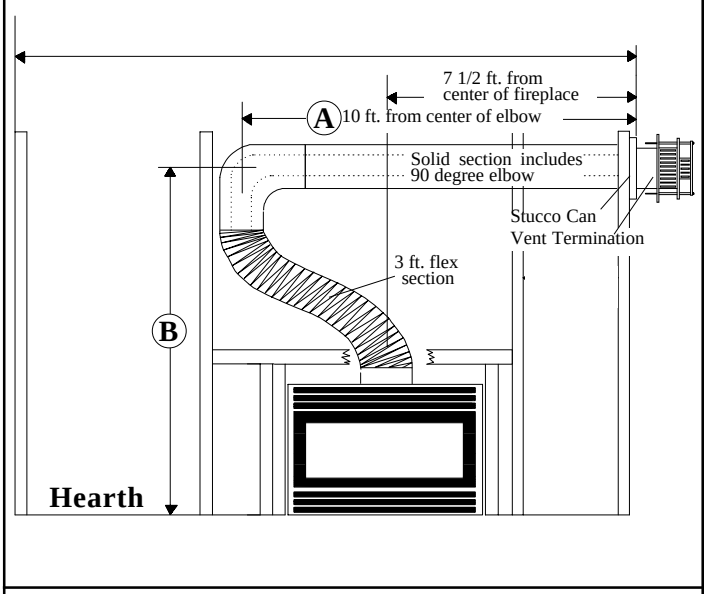


FIGURE 7. RETRACTED 10' SECTION

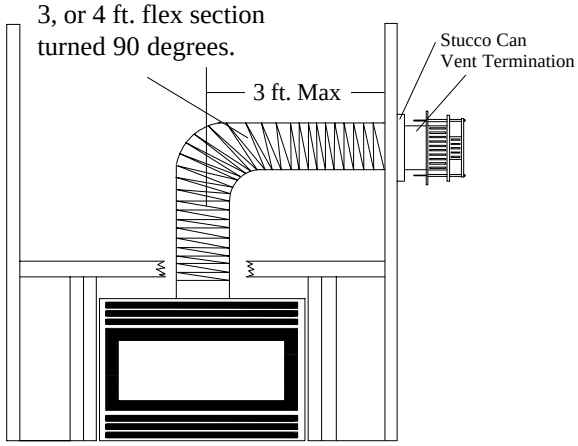


FIGURE 7.1 HORIZONTAL FLEX INSTALLATION

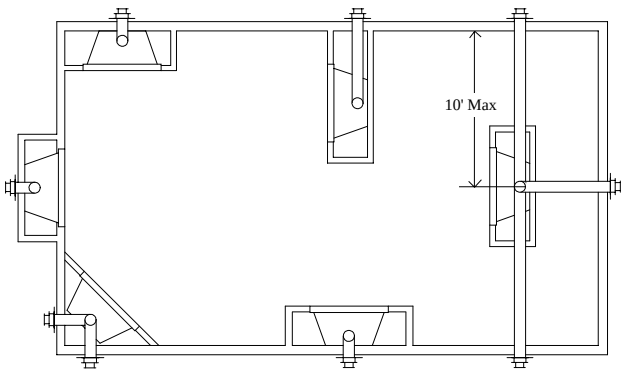


FIGURE 8.TYPICAL VENT TERMINATIONS AND FIREPLACE LOCATIONS

INSTALLATION OF VERTICAL DIRECT VENT

A complete Econo Plus 36DV-TV vertical vent installation may comprise of the following components:

A - Termination	MVTK-1
B - Flex sections	MFL-1 (1' 6" section) MFL-2 (2' 6" section) MFL-3 (3' 6" section) MFL-4 (4' 6" section)
C - Solid sections	MEXT-1 (1' section) MEXT-2 (2' section) MEXT-3 (3' section) MEXT-4 (4' section) MEXT-6 (6' Section)
D - Support Ring & Plate	MSPXT-7 (7" Support Plate & Ring)
E - 7" Firestop	FS-7 (7" Firestop)
F - Roof Flashing	MRF-16 (1/12 to 6/12 pitch) MRF-12 (6/12 to 12/12 pitch)

VERTICAL DIRECT VENT TERMINALS

Shall not be installed;

- Less than two feet above the highest point where vent passes through the roof.

- Less than six feet from a mechanical air inlet.

- Less than three feet from a parapet wall.

Offsets;

- A maximum of two offsets with 90 degree bends may be made and shall not exceed total length of 25% of the vertical vent height, when measured center to center of piping.

EXAMPLE: Typical vent installaion
(see figure 2) 20' vertical vent
2 - 2' offsets required
25% of 20' = 4' max. offset allowed
this venting system complies to instruction requirements.

- **Maximum vent height is 28 feet above fireplace.**

- **Minimum clearances 1" from vent to all combustible materials must be maintained.**

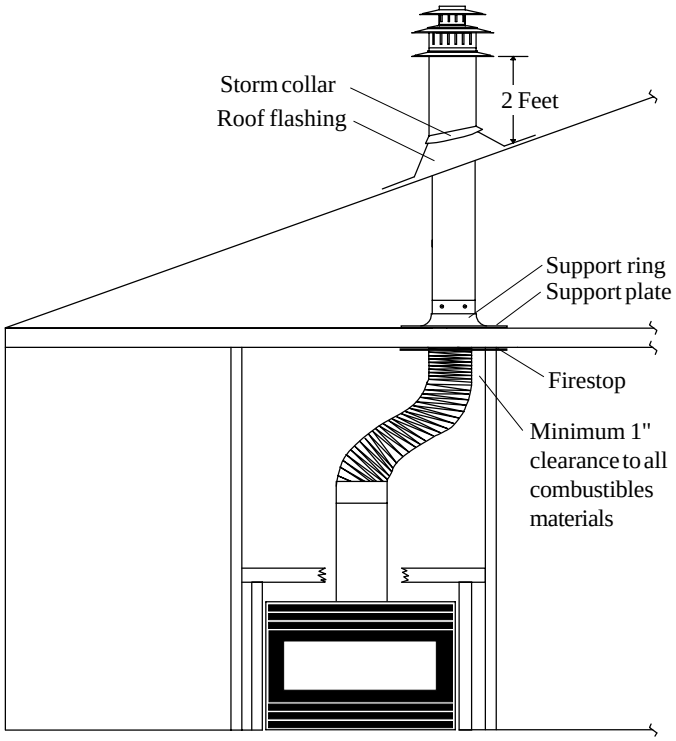


FIGURE 9A.

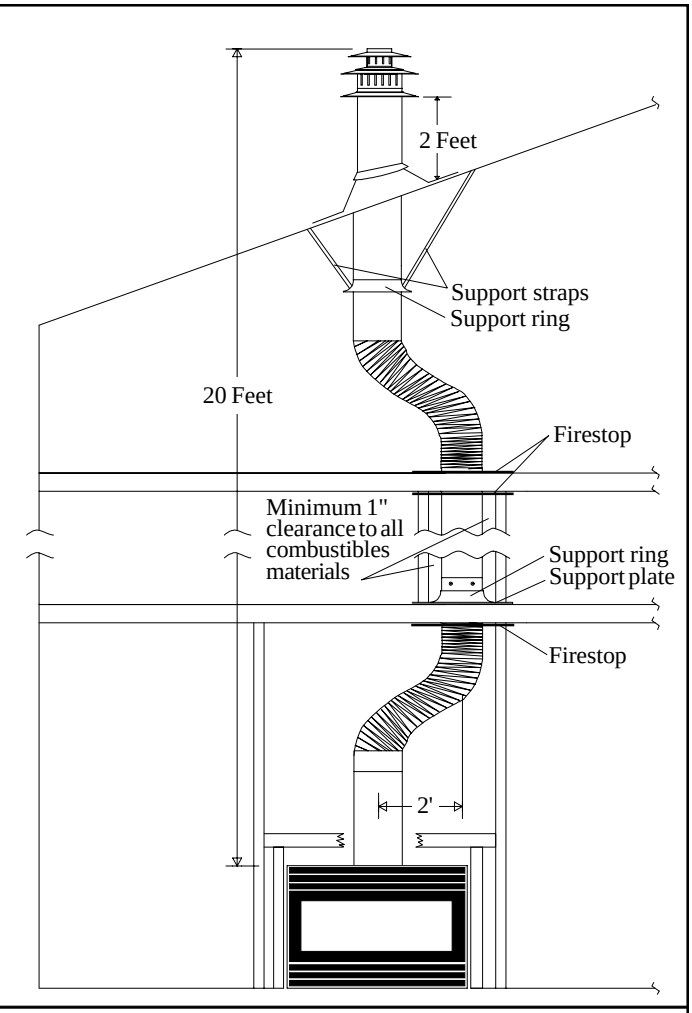


FIGURE 9B.

VENTING GRAPH

Venting graph is used for top vent direct vent model only.

How to use the venting graph:

1 Determine the height for the centre of the 7" vent elbow and mark a horizontal line until it intersects with the slanted graph line.

2. From the point of this intersection draw a vertical line to the bottom line of the graph.

3. Select the indicated dimension and position the fireplace in accordance with the same.

Example A:

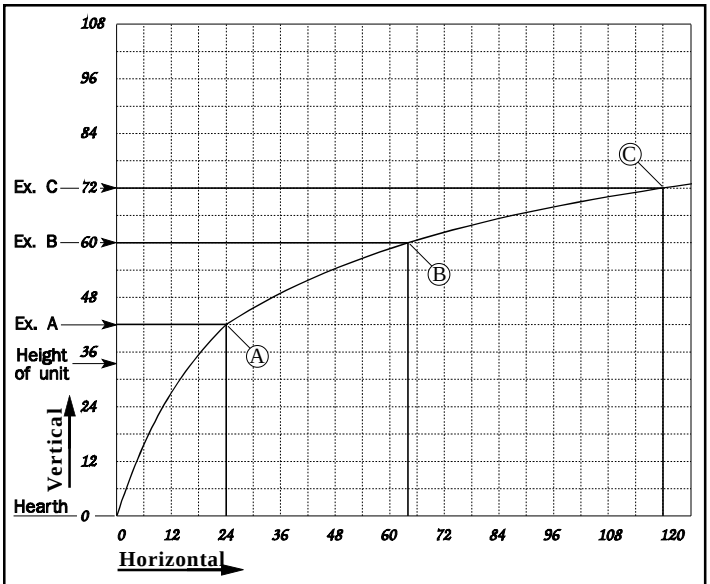
If the vertical dimension from the floor of the fireplace is 42" the horizontal run to the wall flange of the vent termination must not exceed **24".**

Example B:

If the vertical dimension from the floor of the fireplace is 60" the horizontal run to the wall flange of the vent termination must not exceed **64".**

Example C:

If the vertical dimension from the floor of the fireplace is 72" the horizontal run to the wall flange of the vent termination must not exceed **120". (Maximum allowable horizontal length).**



VENTING GRAPH

GENERAL VENT/PIPE INFORMATION

1.) All joints must be secured with the minimum of two screws per joint.

2.) Horizontal runs must be supported by a minimum of two supports per horizontal run. A minimum of one screw on each side of support is also required.

3.) Both ends of the vertical sections are slip sections and are made to slide over fireplace outlets and horizontal section inlets.

INSTALLING THE REMOTE SWITCH

The **Econo Plus 36DV-TV** is equipped with a remote-operated valve, located behind the removable brass grille, to the right of the gas control valve (refer to figure 14.) The valve is pre-wired and completely self contained to generate its own power **DO NOT** connect any external power to it. **Note:** The switch location must not exceed 30' from fireplace.

FIREPLACE MANTEL AND FACING

Combustible mantels and mouldings may be safely installed over the top and on the front of the fireplace provided that they do not project beyond shaded area shown in **figure 10A**. Side wall clearances are 0". Combustible surrounds may be installed with 0" clearance to the side of the fireplace as shown in **figure 10B**.

FIREPLACE FACING

When selecting the finish material for your fireplace, it is important to remember the following: **BRASS TRIMS MUST NOT BE OBSTRUCTED IN ANY WAY - to do so restricts the air supply for the control compartments and heat exchanger it also prevents access for servicing controls.**

The face of the fireplace may be painted to match the room decor, provided you use a heat-resistant paint. Decorative facing must not extend past the fireplace opening at all, because it will interfere with the access to retainers for removal of glass panel and combustion door.

MANTELS & SURROUNDS

NOTE: National Canadian Gas Association mantel test requirements are for fire hazard prevention to combustible materials.

New technology, to meet consumer and government demands for the wise use of energy, has prompted us to manufacture many models of fireplaces which are hot, fuel and energy efficient.

Please be aware; temperatures over the mantel will rise above normal room temperature and walls above fireplace may be hot to touch.

We recommend careful consideration be given to the effects of elavated mantel temperatures which may be in excess of product design, for example: candles, plastic or pictures. This can cause melting, deformation, discoloration or premature failure of T.V. and radio components.

Painting: Special care is recommended by the Master Painters and Decorators Association, when painting the fireplace surrounds, to select and apply a quality Alkyd sealer prior to the applying of latex paints. This is to prevent leaching of water from evaporation and causing a brownish staining effect to paint over coats.

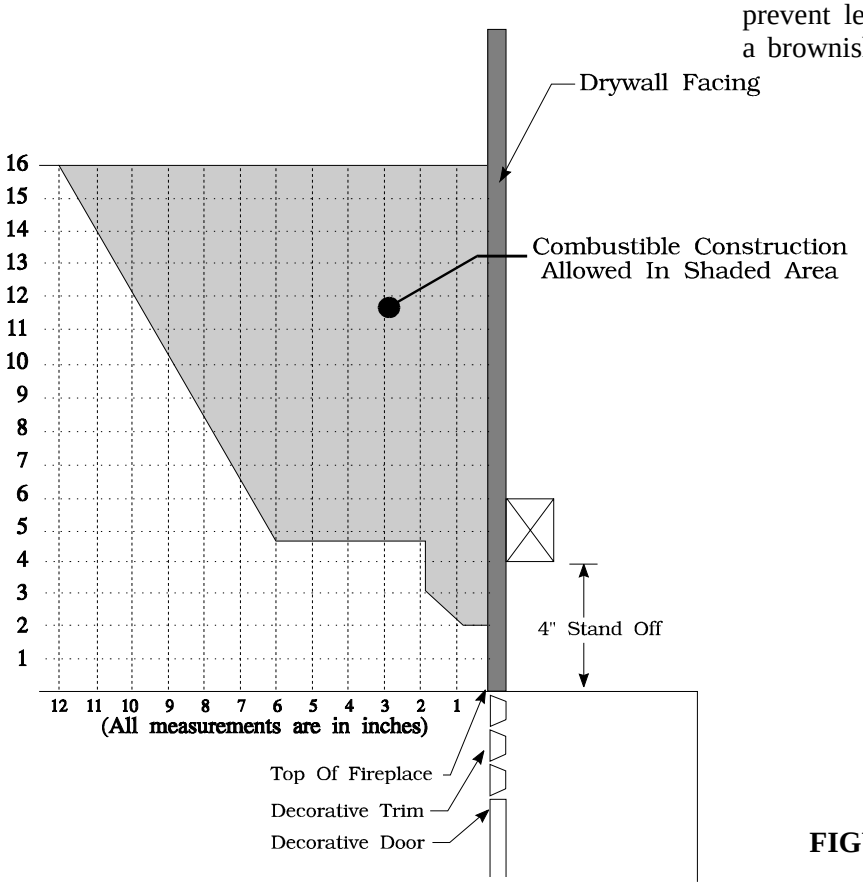


FIGURE 10A. COMBUSTIBLE MANTLES & FACINGS

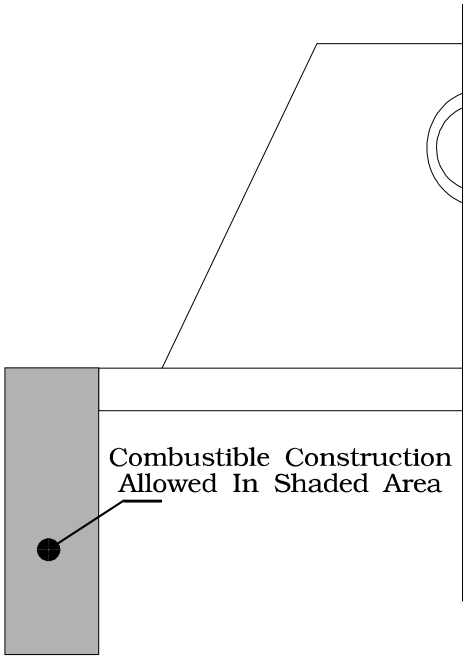


FIGURE 10B. COMBUSTIBLE SURROUNDS

REMOVAL OF OUTER DOOR

Easily removed for cleaning and servicing. Although this pane is made of a very tough tempered glass, always handle it carefully and place in a safe location where it will not be broken or damaged.

To remove the outer glass panel lift upwards and outwards. This will release the panel from the mounting pins. **See Figure 11.**

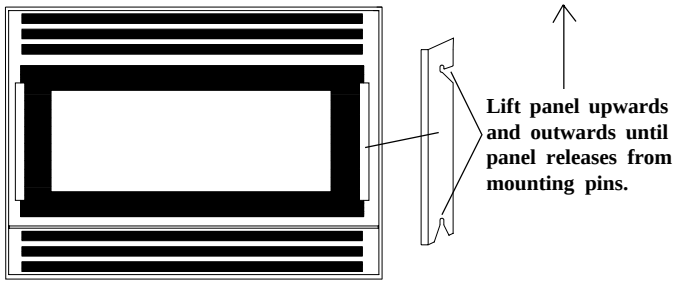


FIGURE 11. OUTER GLASS DOOR

REMOVAL OF INNER DOOR

To remove inner glass door, outer glass door must first be removed. Next turn the safety door locks outwards as illustrated in **Figure 12. Note:** When turning and unlocking the safety door locks a small additional pressure is required to start the unlocking procedure. This is because a latch pin of the safety door lock is seated into a latch plate notch (**see Figure 13**). This ensures the safety door lock is in its correct position, maintaining the door seal is under constant spring pressure.

IMPORTANT: For your safety when replacing inner door to its original position always assure the safety door latch pin is correctly positioned with the notch in the latch plate. (see Figure 13).

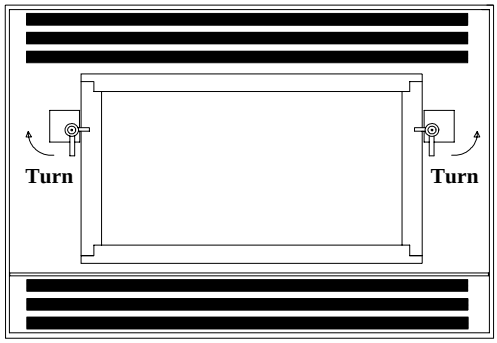


FIGURE 12. INNER GLASS DOOR

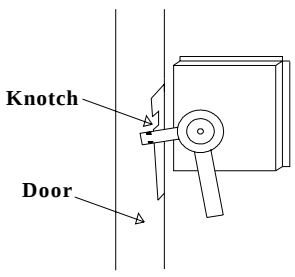
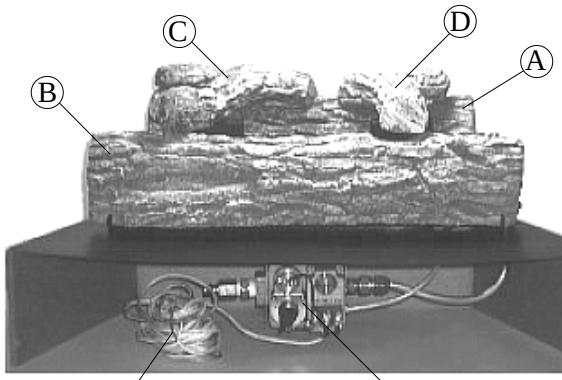


FIGURE 13. SAFETY LOCK

INSTALLING LOG SET

The **EC-Plus 36DV-TV** is supplied with four(4) very attractive cultured oak logs. To install simply place log **"A's"** rectangular shaped extension into the log mounting slot located on rear wall of the burner assembly. Place log **"B"** onto front log slots. Place log **"C"** and log **"D"** onto pins on the burner bar as shown below**.**



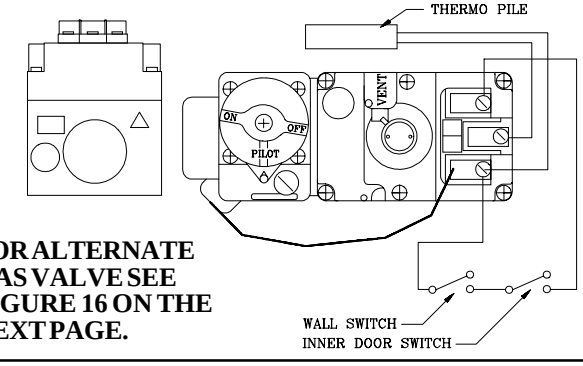
LIGHTING PILOT AND MAIN BURNER

To light pilot it is necessary that you remove outer and inner glass door (refer to sections on glass door removal). The gas control valve is located behind the brass trim in the centre of the fireplace **(see Figure 14 below)**. Before lighting the pilot, make sure that the gas line is connected and the gas shut-off valve is turned to the ON position. To light the pilot we recommend the use of a long match or removal of log"D":

a) Partially depress and turn dial on gas control valve to "OFF" position and wait 5 minutes.
b) Turn dial to pilot position, depress dial and light pilot burner, hold for1 minute, then release. If pilot does not remain ignited, repeat, allowing a longer time to elapse before releasing dial.
c) Re-install inner and outer glass door.

NOTE: For your protection and safety, main gas burner can not be activated until inner glass door has been re-installed to activate a safety cut off switch.

d) To light the main burner, turn dial to "ON", then turn on remote switch.
e) Turn off flame with remote switch. For complete shut down, slightly depress gas control valve dial and turn to "OFF" position.



FOR ALTERNATE GAS VALVE SEE FIGURE 16 ON THE NEXT PAGE.

FIGURE 14. ROBERT SHAW GAS CONTROL VALVE

PILOT BURNER ADJUSTMENT

1. Remove Pilot Adjustment Cap. (see figure 14 or 16)
2. Adjust pilot screw to provide properly sized flame. **See Figure 15 or for properly sized flame.**
3. Replace pilot adjustment cap.
4. Leak test with a soap solution after installing or servicing with main burner on. Coat pipe and tubing joints, gasket etc. with soap solution. Bubbles indicate leaks. Tighten any areas where the bubbles appear until the bubbling stops completely.

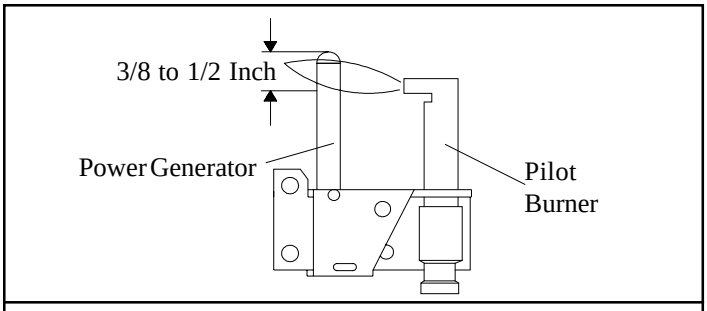


FIGURE 15. PILOT BURNER ADJUSTMENT

MAINTENANCE

The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that burner control compartments, burners and circulating air passageways of the appliance be kept clean. For your convenience a 1/8" pressure tap is supplied on the gas valve for a test gauge connection. **See Figure 14.** For Natural gas the gas line requires an inlet pressure of 7" W.C. and a manifold pressure of 3.5" W.C. For Propane gas the gas line requires an inlet pressure of 11" W.C. and a manifold pressure of 10.5" W.C. Always keep the fireplace area clear and free of combustible materials, as well as gasoline and other flammable vapours and liquids.

CLEANING

When fireplace is first activated some smoking and visible film on the glass may occur, this is a normal condition of heat burning of protective coatings on new metal.

- Products of combustion do deposit a visable film on the glass which must be cleaned periodically. Film can easily be removed by removing inner and outer doors, handling carefully, and cleaning with normal liquid household products.

WARNING: Do not attempt to clean glass when hot. Do not clean glass with abrasive materials as any glass etching may cause premature glass failure.

- Silicone seals on inner door during initial firing will "off gas", leaving a visual deposit of a white substance on combustion chamber walls. This can easily be removed using normal household products.
- Use a vacuum cleaner or whisk broom to keep the control compartment, burner, and firebox free from dust and lint.
- Logs may be cleaned periodically with soap and water to remove soot.

CAUTIONS

*** Fireplace gas control must be in the "OFF" position and pilot and main burners extinguished when cleaning appliance with a vacuum.**
*** Doors and logs can get very hot, handle only when logs are cool.**

TROUBLESHOOTING

The following is a troubleshooting chart of possible problems:

PROBLEM	CORRECTIVE ACTION
Noisy Pilot Flame	Remove pilot adjuster cap, located next to gas shut off valve. Flame is decreased by turning adjustment screw clockwise.
Pilot won't ignite	Disconnect remote wires and try to light pilot. If pilot now works, remote connections are faulty. Check wiring diagram **figure 14.**
Main burner will not light	1. Check wiring **(see figure 14.)** 2. Check wall switch for proper connection. 3. Check door safety switch located center of bottom door rail 4. Burner ignites, adjust activating pin bottom center of inner glass door. 5. Burner does not ignite, check electrical contacts of the door safety switch.

If your **Econo Plus 36DV-TV** still does not operate correctly, consult your dealer or the manufacturer.

All service and repairs should be performed by a qualified agency.

All spare parts, optional fans (see optional fan instruction guide), and optional trim finishes are available from Canadian Heating Products Inc. or your local dealer.

The **Econo Plus 36DV-TV** has a ten-year limited warranty on the firebox, a five-year warranty on the main burner, pilot burner, and cultured oak logs; and a one-year warranty on the gas control valve and glass doors.

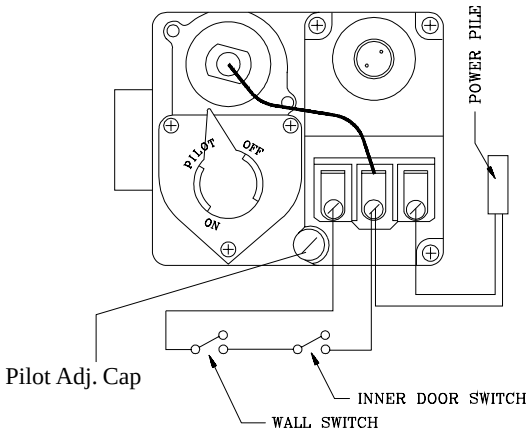


FIGURE 16. WHITE ROGERS GAS CONTROL VALVE

ECONO-PLUS 36DV-TV
GAS FIREPLACE WARRANTY

THE WARRANTY

The Companies warrants the Montigo Gas Appliance to be free from defects in materials and workmanship at the time of manufacture. On the Montigo, there is a ten-year warranty on the firebox and its components, a five-year warranty on the main burner, pilot burner and a one-year warranty on the gas control valve and glass doors.

REMEDY AND EXCLUSIONS

The coverage of this Warranty is limited to all components of the Gas Appliance manufactured by The Companies.

This Warranty only covers Montigo Gas Appliances installed in the United States or Canada.

If the components of the Gas Appliance covered by this Warranty are found to be defective within the time frame stated (see The Companies right of investigation outlined below). The Companies will, at its option, replace or repair defective components of the Gas Appliance manufactured by The Companies at no charge, and will also pay for reasonable labour costs incurred in replacing or repairing components. If repair or replacement is not commercially practical, The Companies will, at its option, refund the purchase price of the Montigo Gas Appliance.

This Warranty covers only parts and labour as provided above. In no case shall The Companies be responsible for materials, components, or construction which are not manufactured or supplied by The Companies, or for the labour necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. the nearest The Companies factory.

QUALIFICATIONS TO THE WARRANTY

The Gas Appliance Warranty outlined above is further subject to the following qualifications:

(1) The Gas Appliance must be installed in accordance with The Companies installation instructions and local building codes. The Warranty on this Montigo Gas Appliance covers only the component parts manufactured by The Companies. The use of components manufactured by others with this Montigo Gas Appliance could create serious safety hazards, may result in the denial of certification by recognized national safety agencies, and could be in violation of local building codes. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by The Companies

(2)The Montigo Gas Appliance must be subjected to normal use. The Gas Appliances are designed to burn gas only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the Gas Appliance, will produce excessive temperatures and will result in a fire hazard.

LIMITATIONS ON LIABILITY

It is expressly agreed and understood that The Companies sole obligation, and purchaser's exclusive remedy under this Warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above.

In no event shall The Companies be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by The Companies negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this Montigo Gas Appliance is limited to the duration of the foregoing warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above may not apply to you.

INVESTIGATION OF CLAIMS AGAINST WARRANTY

The Companies reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

THE COMPANIES ARE NOT RESPONSIBLE FOR WORK DONE WITHOUT WRITTEN CONSENT

The Companies shall in no event be responsible for any warranty work done without first obtaining The Companies written consent.

DEALERS HAVE NO AUTHORITY TO ALTER THIS WARRANTY

The Companies employees and dealers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

HOW TO REGISTER A CLAIM AGAINST WARRANTY

In order for any claim under this Warranty to be valid, The Companies must be notified of the claimed defect in writing or by telephone, as soon as reasonably possible after the defect is discovered. Claims against this Warranty in writing should include the date of installation, and a description of the defect.

OTHER RIGHTS

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

NOTE: *The Companies* as stated above refer to - Canadian Heating Products Inc. and/or Montigo Del Ray Corp.
Canadian Heating Products Inc. and/or Montigo DelRay Corp. reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products.

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